

REMARKS/ARGUMENTS

Claims 1-39 are pending in the present application. Claims 6, 17, 26 and 36 are allowed. The Examiner has rejected claims 1-5, 7-25, 27-35, and 37-39. Applicant has amended claim 14 to correct a typographical error as to its dependency. Applicant respectfully requests reconsideration of pending claims 1-39.

The Examiner has rejected claims 1-4, 8-15, 19-24, 28-34, 38, and 39 under 35 U.S.C. §102(e) as being anticipated by Acharya et al. (U.S. Patent No. 6,343,326 B2). Applicant respectfully disagrees.

Regarding claims 1, 13, 21, and 32, Applicant submits that the cited reference fails to disclose the claimed invention as set forth in such claims. For example, regarding claim 1, Applicant submits that the cited reference fails to disclose “downloading the multicast session table entry to the edge devices, wherein the distributed router comprises the edge devices.” As another example, regarding claim 13, Applicant submits that the cited reference fails to disclose “generating within the distributed router a multicast session table entry from the routing table and the group affiliation table when a data packet is detected for a group.” As another example, regarding claim 21, Applicant submits that the cited reference fails to disclose “download the multicast session table entry to the edge devices, wherein the distributed router comprises the edge devices.” As another example, regarding claim 32, Applicant submits that the cited reference fails to disclose “generate within the distributed router a multicast session table entry from the routing table and the group affiliation table when a data packet is detected for a group.” The Examiner cites col. 6, line 65, to col. 7, line 5, and figure 10 of the cited reference as disclosing the above-referenced features. However, Applicant submits that such portions of the cited reference state, “...the ATM switch 520 has the VC routing-table which is stored in an ATM line interface card and which is given the available VC determined for the flow.” Applicant submits that the cited reference states, in col. 6, lines 29-31, “ATM switches 520 and 530 have ports which are connected to the individual IP routers 525 and 535.” Thus, Applicant submits that the teaching cited by the Examiner in col. 6, line 65, to col. 7, line 5, and figure 10, refers to ATM switch 520, not to IP router 525. Therefore, Applicant submits that the cited reference fails to disclose “generating within the distributed router a multicast session table entry...” or “wherein the distributed router comprises the edge devices.” Moreover, Applicant submits that the cited reference fails to

disclose “downloading the multicast session table entry to the edge devices, wherein the distributed router comprises the edge devices.” Thus, Applicant submits that claims 1, 13, 21, and 32 are in condition for allowance.

Regarding claims 10, 30, and 11, Applicant submits that the cited reference fails to disclose the claimed invention as set forth in such claims. For example, regarding claims 10, 30, and 11, Applicant submits that the cited reference fails to disclose generating “within the distributed router a multicast session table entry from the routing table and the group affiliation table when a data packet is detected for a group.” As noted above, Applicant submits that the teaching cited by the Examiner in col. 6, line 65, to col. 7, line 5, and figure 10, refers to ATM switch 520, not to IP router 525. Therefore, Applicant submits that the cited reference fails to disclose generating “within the distributed router a multicast session table entry...” Thus, Applicant submits that claims 10, 30, and 11 are in condition for allowance.

Regarding claims 2, 14, 22, and 33, Applicant submits that claims 2, 14, 22, and 33 depend from claims that Applicant submits are allowable. Thus, Applicant submits that claims 2, 14, 22, and 33 are also in condition for allowance.

Regarding claims 3, 12, 23, and 31, Applicant submits that the cited reference fails to disclose the claimed invention as set forth in such claims. For example, Applicant submits that the cited reference fails to disclose “receiving a routing protocol message from a router associated with one of the virtual subnetworks” and “interpreting the routing protocol message to determine ports coupled to downstream routers.” While the Examiner cites col. 12, lines 5-10, of the cited reference as disclosing “receiving a routing protocol message from a router...,” Applicant submits that the cited portion of the cited reference merely states, “...the IGMP is run on a designated router (DR) so as to identify or recognize information for specifying a multicast group to which each host or terminal belongs” and “...the IGMP learns about group members that are directly attached to the designated router (DR).” Applicant submits that none of the cited portion of the cited reference discloses “receiving a routing protocol message from a router...” Applicant further submits that the Examiner does not cite any portion of the cited reference with respect to the step of “interpreting the routing protocol message...” Moreover, even if the Examiner were to allege that col. 12, lines 5-10, of the cited reference disclose “interpreting the routing protocol message...,” such allegation would run counter to the assertion that

such portion of the cited reference discloses “receiving a routing protocol message from a router...,” as the cited portion of the cited reference only mentions a single “designated router” and does not disclose both a “router” and “downstream routers” nor does it distinguish between a “router” and “downstream routers.” Thus, Applicant submits that claims 3, 12, 23, and 31 are in condition for allowance.

Regarding claims 4, 15, 24, and 34, Applicant submits that the cited reference fails to disclose the claimed invention as set forth in such claims. For example, Applicant submits that the cited reference fails to disclose “suppressing forwarding of the report to other ports of the virtual subnetwork.” While the Examiner cites col. 9, lines 50-67, of the cited reference as disclosing such feature, Applicant submits that the cited portion of the cited reference fails to disclose such “suppressing...” Applicant also submits that the Examiner fails to cite any portion of the cited reference as disclosing either the step of “providing a membership query...” or “receiving...a report...” Thus, Applicant submits that claims 4, 15, 24, and 34 are in condition for allowance.

Regarding claims 8, 19, 28, and 38, Applicant submits that the cited reference fails to disclose the claimed invention as set forth in such claims. For example, Applicant submits that the cited reference fails to disclose “receiving a query from a legacy router.” While the Examiner cites col. 12, lines 5-15, as disclosing such feature, Applicant submits that such portion of the cited reference merely states, “...the IGMP is run on a designated router (DR) so as to identify or recognize information for specifying a multicast group to which each host or terminal belongs” and “...the IGMP learns about group members that are directly attached to the designated router (DR).” Applicant submits that such portion of the cited reference fails to disclose “receiving a query from a legacy router.” As another example, Applicant submits that the Examiner fails to cite any portion of the cited reference as disclosing “receiving reports from the ports for each of the plurality of virtual subnetworks.” As another example, Applicant submits that the cited reference fails to disclose “upon receiving reports per query interval, forwarding up to a given number of reports to the legacy router.” While the Examiner cites col. 12, lines 35-65, of the cited reference as disclosing such feature, Applicant can find no reference in lines 35-65 of the “designated router (DR),” which the Examiner appears to allege to disclose “a legacy router” with respect to “receiving a query from a legacy router.” Thus, Applicant submits that the Examiner’s assertion of col. 12, lines 5-15, of the cited reference allegedly disclosing “receiving a query from a legacy router” cannot be logically reconciled with the Examiner’s assertion of col. 12, lines 35-65, of the cited reference allegedly disclosing “upon receiving reports per query

interval, forwarding up to a given number of reports to the legacy router.” Thus, Applicant submits that claims 8, 19, 28, and 38 are in condition for allowance.

Regarding claims 9, 20, 29, and 39, Applicant submits that the cited reference fails to disclose the claimed invention as set forth in such claims. For example, Applicant submits that the cited reference fails to disclose “suppressing reports after the given number of reports have been forwarded to the legacy router.” While the Examiner cites col. 12, lines 10-30, of the cited reference as disclosing such feature, Applicant submits that there is simply no such disclosure of such feature to be found in the cited portion. Thus, Applicant submits that claims 9, 20, 29, and 39 are in condition for allowance.

The Examiner has rejected claims 5, 7, 16, 18, 25, 27, 35, and 37 under 35 U.S.C. §103(a) as being unpatentable over Acharya et al. (U.S. Patent No. 6,343,326 B2) in view of Dunstan et al. (U.S. Patent No. 6,654,371 B1). Regarding claims 5, 7, 16, 18, 25, 27, 35, and 37, Applicant respectfully disagrees. The Examiner states that Acharya et al. does not disclose “receiving a leave message via a port of one of the edge devices, wherein the leave message indicates that a member desires to leave a multicast group.” The Examiner cites col. 4, lines 5-30, of Dunstan et al. as disclosing such feature. The Examiner further states that it would have been obvious to one having ordinary skill in the art to have the feature of leave message in the system of Acharya et al. so that the endstation can exit the multicast group properly. However, Applicant notes that Dunstan et al. states, in col. 4, lines 26-28, “The IGMP-R 203 typically will not run multicast routing protocols on any interface.” Thus, Applicant submits it would not have been obvious for one of ordinary skill in the art to attempt to combine the teachings of Acharya et al. and Dunstan et al. in a manner that would allegedly yield the claimed invention as set forth in claims 5, 7, 16, 18, 25, 27, 35, and 37. Therefore, Applicant submits that claims 5, 7, 18, 25, 27, 35, and 37 are in condition for allowance.

In conclusion, Applicant has overcome all of the Office's rejections, and early notice of allowance to this effect is earnestly solicited. If, for any reason, the Office is unable to allow the Application on the next Office Action, and believes a telephone interview would be helpful, the Examiner is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

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Date

Ross D. Snyder

Ross D. Snyder, Reg. No. 37,730

Attorney for Applicant(s)

Ross D. Snyder & Associates, Inc.

115 Wild Basin Road, Suite 107

Austin, Texas 78746

(512) 347-9223 (phone)

(512) 347-9224 (fax)